

see how easy it is to move he K-Line Pod System.

K-Line Irrigation System Features

| it Line impation bystem reatures | | Deficit |
|----------------------------------|----------|--|
| Low capital cost | • | Low capital cost to get up and running. |
| Easy to do | | Ease of installation, use and operation - making it an ideal DIY project. |
| Multi-terrain | | Suits all types of terrain. |
| Low pressure | | Low pressure requirements. |
| Lower power | (| Lower power requirements than other systems. |
| Expandable | | Modular system that can grow with your needs. |
| Movable | | Transportable and able to cover a large area by shifting using a quad bike or ATV. |
| | | |

WHAT'S AVAILABLE IN THE K-LINE RANGE?

K-Line Standard (Std) Pod Irrigation range

(430 x 230mm) offers the following selection of sprinklers:

- Naan 5022 sprinkler with nozzle sizes of 2.8 to 4.0mm, with a maximum spacing of up to 15m, a recommended working pressure of 2.5 to 3.5 bar, flow rate of 450 to 1100 litres/hour and diameter of 21 to 25.5m. Sprinklers are colour coded for easy identification.
- Nelson R2000WF sprinkler ideal for use at wind affected sites or where the option of pressure regulation is required. Has a maximum spacing of up to 15m, a recommended working pressure of 2.75 to 4.5 bar, flow rate of 201 to 1295 litres/hour and diameter of 21 to 27.4m. Sprinklers are colour coded for easy identification.

Also available pre-packaged with the Nelson Mini Regulator, pressure regulated

- Senninger 2023 sprinkler with nozzle sizes of 3.7 to 4.76mm, with a maximum spacing of up to 20m, a recommended working pressure of 2.0 to 3.5 bar, flow rate range of 700 to 1619 litres/hour and a diameter range of 26 to 30m. Sprinklers are colour coded for easy identification.
- K-Line Mid Irrigation pod range

(560 x 290mm) provides a slightly larger pod meaning greater stability during transport offering:

· A Senninger 5023 sprinkler with nozzle sizes of 5.16 to 7.14mm, with a maximum spacing of up to 20m, a recommended working pressure of 2.5 to 3 bar, flow rate range of 1630 to 3260 litres/hour and a diameter range of 29.2 to 34m.

Sprinklers are colour coded for easy identification.

Low maintenance costs as the only moving parts are the sprinklers, pipe, pumps and valves.

K-Line Max Irrigation pod range

(860 x 590mm) is the largest pod size offering even greater stability during transport and ability to house even larger sprinklers, offering:

- Senninger 7025 sprinkler with nozzle sizes of 5.56 to 9.53mm, with a maximum spacing of up to 40m, a recommended working pressure of 2.5 to 3.0 bar, flow rate range of 1880 to 5630 litres/hour and a diameter range of 34.3 to 46.3m. Sprinklers are colour coded for easy identification.
- Senninger 8025 sprinkler with nozzle sizes of 9.53mm to 15.88mm, with a maximum spacing of up to 40m, a recommended working pressure of 2.5 to 3.0 bar, flow rate range of 5450 to 15,880 litres/hour and a diameter range of 39.5 to 51.4m. Sprinklers are colour coded for easy identification.

RESOURCES AVAILABLE

The following resources are readily available via the Philmac website at www.philmac.com.au as well as a selection of videos on the product in use.



K-Line FarmPack



(FarmPack) installation

and user manual



Mid Irrigation

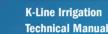
Product Brochure





K-Line Irrigation

Technical Manual





Low cost, transportable, modular irrigation system

INTRODUCTION TO RX PLASTICS & PHILMAC

RX Plastics is New Zealand's leading manufacturer of irrigation products, pipe and effluent dispersal systems.

With over 30 years' experience, RX Plastics has a strong innovation focus and dedication to high quality thermoplastic solutions for water transport and dispersion.

The RX Irrigation and Effluent solutions are proudly distributed in Australia by Australian manufacturer and distributor, Philmac.

As members of the Aliaxis group of companies, RX Plastics and Philmac have access to a worldwide presence and 15,000 employees dedicated to the development and supply of special plastic pipe and fitting products.

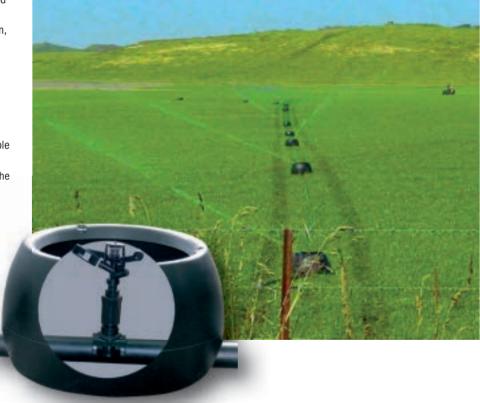
Philmac has over 80 years' experience in the design and manufacture of world leading compression fittings and valves for polyethylene pipelines for the global market. The K-Line Irrigation and Effluent solutions are supported by Philmac's local distribution centres, Australian contact centre and dedicated sales team.

WHAT IS THE K-LINE IRRIGATION SOLUTION?

K-Line Irrigation is a revolutionary, specially formulated flexible tubing and unique patented pod sprinkler system designed to reduce the time and money spent on irrigation installation, operating and repairs. It is both power and water efficient.

The heart of the system is a series of highly durable patented transportable pods. Made from advanced thermoplastics, the pod protects a sprinkler that is firmly attached to the exceptionally strong and flexible polyethylene (PE or poly) K-Pipe that resists kinking, abrasive soils, freezing, UV light and the stresses of transporting the K-Line system.

K-Line is a low pressure transportable and modular irrigation system designed to distribute water with a slow, efficient absorption method similar to rain saving time, labour and water resources. The K-Line system can be easily shifted by an ATV/quad bike or similar tow vehicle in minutes, efficiently irrigating from 1ha to more than 10,000ha. K-Line's modular design can adapt and grow with your needs.



















| Pressure (Bar) | 2.50 | 2.75 | 3.00 |
|----------------------|------|------|------|
| Purple (2.5mm) | | | |
| (m ³ /hr) | 1.88 | 1.97 | 2.05 |
| Diameter (metres) | 34.3 | 34.7 | 35.1 |
| Orange (2.8mm) | | | |
| (m ³ /hr) | 2.48 | 2.60 | 2.75 |
| Diameter (metres) | 36.3 | 37.0 | 37.6 |
| Red (3.0mm) | | | |
| (m ³ /hr) | 0.51 | 0.63 | 0.72 |
| Diameter (metres) | 23.0 | 24.5 | 25.0 |
| Green (3.2mm) | | | |
| (m³/hr) | 0.57 | 0.70 | 0.81 |
| Diameter (metres) | 23.5 | 24.5 | 25.4 |
| Blue (3.5mm) | | | |
| (m ³ /hr) | 0.66 | 0.81 | 0.93 |
| Diameter (metres) | 25.0 | 26.0 | 26.0 |
| Black (4.0mm) | | | |
| (m ³ /hr) | 0.85 | 1.03 | 1.18 |
| Diameter (metres) | 24.0 | 26.0 | 26.0 |



| ellilligei 7025 | | | |
|---------------------|------|------|------|
| Pressure (Bar) | 2.50 | 2.75 | 3.00 |
| #14 Nozzle (5.56mm) | | | |
| m³/hr) | 1.88 | 1.97 | 2.05 |
| Diameter (metres) | 34.3 | 34.7 | 35.1 |
| #16 Nozzle (6.35mm) | | | |
| m³/hr) | 2.48 | 2.60 | 2.75 |
| Diameter (metres) | 36.3 | 37.0 | 37.6 |
| #18 Nozzle (7.14mm) | | | |
| m³/hr) | 3.07 | 3.23 | 3.37 |
| Diameter (metres) | 38.4 | 39.0 | 39.6 |
| #20 Nozzle (7.94mm) | | | |
| m³/hr) | 3.68 | 3.86 | 4.03 |
| Diameter (metres) | 40.5 | 41.3 | 42.0 |
| #22 Nozzle (8.73mm) | | | |
| m³/hr) | 4.42 | 4.64 | 4.84 |
| Diameter (metres) | 42.2 | 43.8 | 45.3 |
| #24 Nozzle (9.53mm) | | | |
| m³/hr) | 5.15 | 5.39 | 5.63 |
| Diameter (metree) | 13.6 | 45 O | 46.3 |



| r 8025 | | | Naan | |
|--------|------|------|------|---------|
| ar) | 2 50 | 2 75 | 3.00 | Droceur |

| essure (Bar) | 2.50 | 2.75 | 3.00 |
|---------------------|-------|-------|-------|
| 4 Nozzle (9.53mm) | | | |
| ³ /hr) | 5.45 | 5.71 | 5.97 |
| ameter (metres) | 39.5 | 40.7 | 41.9 |
| 6 Nozzle (10.32mm) | | | |
| ³ /hr) | 6.43 | 6.64 | 6.94 |
| ameter (metres) | 41.9 | 43.2 | 44.4 |
| 8 Nozzle (11.11mm) | | | |
| ³ /hr) | 7.34 | 7.70 | 8.04 |
| ameter (metres) | 43.7 | 45.0 | 46.2 |
| 0 Nozzle (11.91mm) | | | |
| ³ /hr) | 8.32 | 8.73 | 9.12 |
| ameter (metres) | 45.3 | 46.5 | 47.7 |
| 2 Nozzle (12.7mm) | | | |
| ³ /hr) | 9.47 | 9.93 | 10.38 |
| ameter (metres) | 46.2 | 47.4 | 48.6 |
| 4 Nozzle (13.49mm) | | | |
| ³ /hr) | 10.69 | 11.21 | 11.71 |
| ameter (metres) | 47.1 | 48.3 | 49.5 |
| 66 Nozzle (14.29mm) | | | |
| ³ /hr) | 12.00 | 12.58 | 13.14 |
| ameter (metres) | 47.7 | 48.9 | 50.1 |
| 88 Nozzle (15.08mm) | | | |
| ³ /hr) | 12.93 | 13.56 | 14.16 |
| ameter (metres) | 48.3 | 49.6 | 50.8 |
| 0 Nozzle (15.88mm) | | | |
| ³ /hr) | - | 15.20 | 15.88 |



| Pressure (Bar) | 3.00 | 4.00 | 5.00 |
|----------------------|------|------|------|
| Blue (3.5mm) | | | |
| (m ³ /hr) | 0.81 | 0.93 | 1.02 |
| Diameter (metres) | 26.5 | 27.5 | 28.0 |
| Black (4.0mm) | | | |
| (m ³ /hr) | 1.06 | 1.22 | 1.35 |
| Diameter (metres) | 28.0 | 29.0 | 29.5 |
| Brown (4.5mm) | | | |
| (m³/hr) | 1.29 | 1.50 | 1.65 |
| Diameter (metres) | 28.5 | 30.0 | 33.0 |
| Purple (5.0mm) | | | |
| (m ³ /hr) | 1.60 | 1.85 | 2.10 |
| Diameter (metres) | 30.0 | 33.5 | 34.0 |
| Orange (5.5mm) | | | |
| (m³/hr) | 1.95 | 2.25 | 2.50 |
| Diameter (metres) | 32.0 | 34.5 | 36.0 |
| Red (6.0mm) | | | |
| (m³/hr) | 2.30 | 2.70 | 3.00 |
| Diameter (metres) | 33.0 | 35.5 | 36.0 |



Nelson R20000 WF Plate / Nozzle Options and Flow Performance in LP

| Plate options* | Pagammandad Na | TTIOC | | | Bar | | |
|----------------------|--------------------|---------------------|------|------|------|------|------|
| riate options. | Recommended No. | Recommended Nozzles | | 3.0 | 3.5 | 4.0 | 4.5 |
| Green WF14 | | | | | | | |
| Radius: 38 - 41 feet | #4.4.Crass (7.(C4) | 4 | 407 | F00 | FFO | F00 | 000 |
| (11.9 - 12.5 metres) | #14 Green (7/64) | | 487 | 509 | 550 | 590 | 626 |
| Red WF16 | | | | | | | |
| Radius: 40 - 42 feet | #15 Tan (15/128) | | 574 | 597 | 647 | 695 | 737 |
| (12.2 - 12.8 metres) | #16 Red (1/8) | | 655 | 385 | 739 | 792 | 837 |
| Gold WF18 | | | | | | | |
| Radius: 41 - 43 feet | #40.0-14.00.04\ | 4 | 00.4 | 000 | 0.40 | 4004 | 4000 |
| (12.5 - 13.1 metres) | #18 Gold (9/64) | | 834 | 869 | 940 | 1001 | 1060 |
| Dark Brown WF20 | | | | | | | |
| Radius 42 - 45 feet | #00 D. J. D *** | - | 4040 | 1000 | 4444 | 1000 | 4005 |
| (12.8 - 13.7 metres) | #20 Dark Brown *** | | 1016 | 1062 | 1144 | 1222 | 1295 |



| dan oollob | | |
|-------------------|------|------|
| ressure (Bar) | 2.50 | 3.00 |
| Red (3.0mm) | | |
| m³/hr) | 0.57 | 0.63 |
| Diameter (metres) | 21.0 | 22.0 |
| Green (3.2mm) | | |
| m³/hr) | 0.64 | 0.70 |
| Diameter (metres) | 21.2 | 22.2 |
| Blue (3.5mm) | | |
| m³/hr) | 0.74 | 0.81 |
| Diameter (metres) | 23.0 | 23.0 |
| Black (4.0mm) | | |
| m³/hr) | 0.95 | 1.03 |
| Diameter (metres) | 23.2 | 24.2 |
| | | |

Compact Impact

| Sprinkler Base Pressure (psi) | 30 | 35 | 40 | 45 | 50 | Sprinkler Base Pressure (bar) | 2.07 | 2.42 | 2.76 | 3.11 | 3.45 |
|----------------------------------|--------|------|------|------|------|----------------------------------|-------|------|------|------|------|
| #9 Nozzle - Grey [9/64" |] | | | | | #9 Nozzle - Grey [3.57mm | n] | | | | |
| Flow (gpm) | 3.08 | 3.33 | 3.56 | 3.78 | 3.98 | Flow (L/hr) | 700 | 756 | 809 | 859 | 904 |
| Diameter at 1.5' ht. (ft) | 78 | 78 | 82 | 86 | 86 | Diameter at 0.5m ht (m) | 24 | 24 | 25 | 26 | 26 |
| Diameter at 3.0' ht (ft) | 84 | 86 | 87 | 88 | 90 | Diameter at 0.9m ht (m) | 26 | 26 | 27 | 27 | 27 |
| #10 Nozzle - Turquoise (| 5/32") | | | | | #10 Nozzle - Turquoise (3 | .97mm | 1) | | | |
| Flow (gpm) | 3.82 | 4.13 | 4.41 | 4.68 | 4.93 | Flow (L/hr) | 868 | 938 | 1002 | 1063 | 1120 |
| Diameter at 1.5' ht. (ft) | 80 | 82 | 82 | 86 | 88 | Diameter at 0.5m ht (m) | 24 | 25 | 25 | 26 | 27 |
| Diameter at 3.0' ht (ft) | 86 | 87 | 89 | 91 | 92 | Diameter at 0.9m ht (m) | 26 | 27 | 27 | 28 | 28 |
| #11 Nozzle - Yellow (11/ | (64") | | | | | #11 Nozzle - Yellow (4.37mm) | | | | | |
| Flow (gpm) | 4.63 | 5.00 | 5.34 | 5.67 | 5.98 | Flow (L/hr) | 1052 | 1136 | 1213 | 1288 | 1358 |
| Diameter at 1.5' ht. (ft) | 82 | 82 | 86 | 88 | 90 | Diameter at 0.5m ht (m) | 25 | 25 | 26 | 27 | 27 |
| Diameter at 3.0' ht (ft) | 88 | 89 | 92 | 94 | 95 | Diameter at 0.9m ht (m) | 27 | 27 | 28 | 29 | 29 |
| #12 Nozzle - Red (3/16 | ") | | | | | #12 Nozzle - Red (4.76m | m) | | | | |
| Flow (gpm) | 5.52 | 5.97 | 6.37 | 6.76 | 7.13 | Flow (L/hr) | 1254 | 1356 | 1447 | 1535 | 1619 |
| Diameter at 1.5' ht. (ft) | 83 | 87 | 90 | 92 | 96 | Diameter at 0.5m ht (m) | 25 | 27 | 27 | 28 | 29 |
| Diameter at 3.0' ht (ft) | 89 | 91 | 94 | 97 | 98 | Diameter at 0.9m ht (m) | 27 | 28 | 29 | 30 | 30 |

Sprinkler performance may vary with field conditions. Diameters shown for standard stream straightening vane (white). Other nozzles and/or vane combinations are available, consult factory for specific performance data. Stream heights range from 7.7 - 10.1 ft [2.3 - 3.1 m] above nozzle based on pressure and nozzle size. Minimum recommended riser height is 1.5 ft [0.5 m]. Also available in 1/2" NPT model.

EXAMPLES OF SHIFTING THE K-LINE

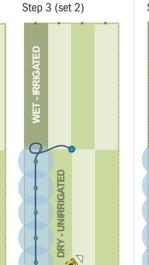
You can shift K-Line Irrigation by hand or with an ATV, heavy duty lawn tractor, golf cart, Gator, or similar tow vehicle.

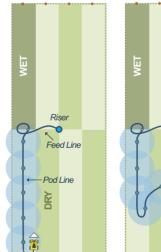
2 to 2.5m from the K-Line as you tow it downfield to the next set. Shifting the K-Line while the sprinklers are in operation is preferred. 5 Pod / 1 hectare Kit.

Position the tow vehicle along side and remain Full installation and operation instructions, both in printed and DVD formats, are supplied with the purchase of a K-Line

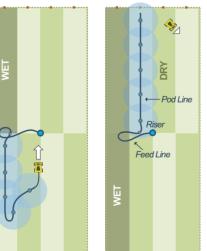
| Shifting from Set 1 to Set 2 Step 1 Step 2 | | | | | | | |
|--|--------------|--|--|--|--|--|--|
| F | ine Siser | | | | | | |







Shifting from Set 2 to Set 3

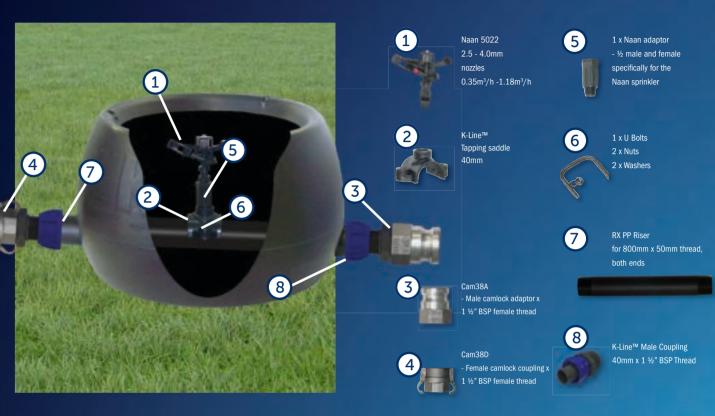


PRODUCT LISTING

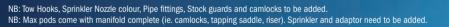
| DUCT NO. | DESCRIPTION | PRODUCT NO. | DESCRIPTION |
|--|---|----------------|---|
| E FARM PACK 1 HECTARE KIT-COM | MPLETE | SPARE PARTS | |
| 32FARMPACK | | KLFC40 | K-Line Female Coupling 40mm |
| E PODS COMPLETE WITH NAAN S | PRINKLER | KLMC40 | K-Line Male Coupling 40mm |
| NAANPR | K-Line 40mm NAAN 5022 SPKLR purple | KLSC40 | K-Line Straight Coupling 40mm |
| NAANOR | K-Line 40mm NAAN 5022 SPKLR orange | KLTPS40 | K-Line 40mm Tapping Saddle |
| NAANRD | K-Line 40mm NAAN 5022 SPKLR red | NAAN-ADAPTOR | K-Line Naan Adapter |
| NAANGN | K-Line 40mm NAAN 5022 SPKLR green | NAANSHAFT | K-Line Naan 5022 spklr shaft |
| NAANBU | K-Line 40mm NAAN 5022 SPKLR blue | NELSON-ADAPT | K-Line Nelson spklr adapter |
| NAANBK | K-Line 40mm NAAN 5022 SPKLR black | RXGHC40 | K-Line 40mm Galvanised hook cap |
| ID and 45mm ID options also available on request | | UB40 | K-Line 40mm ss U-Bolt (old) |
| IE PODS COMPLETE WITH NELSON | I SPRINKLER | UBSS32/40 | K-Line 32mm 40mmss U-Bolt |
| NELGNGN | K-Line 40mm NEL R2KWF SPKLR gm gm | KLPRV4030 | K-Line Pressure reducing valve 30m Spring |
| NELRDTN | K-Line 40mm NEL R2KWF SPKLR red tan | KLPRV4035 | K-Line Pressure reducing valve 35m Spring |
| NELRDRD | K-Line 40mm NEL R2KWF SPKLR red red | KLPRV4040 | K-Line Pressure reducing valve 40m Spring |
| NELGDGD | K-Line 40mm NEL R2KWF SPKLR gld gld | KLPRV4045 | K-Line Pressure reducing valve 45m Spring |
| NELBNBN | K-Line 40mm NEL R2KWF SPKLR brn brn | NAAN5022BLK | NAAN 5022 Sprinkler with black nozzle |
| ID and 45mm ID options also available on request | | NAAN5022RED | NAAN 5022 Sprinkler with red nozzle |
| IE PODS COMPLETE WITH NELSON SURE REGULATED 50PSI | I SPRINKLER | NAAN5022BLU | NAAN 5022 Sprinkler with blue nozzle |
| NR50GNGN | K-Line 40mm NEL R2KWF 50PSI SPKLR green green | NAAN5022GRN | NAAN 5022 Sprinkler with green nozzle |
| NR50RDTN | K-Line 40mm NEL R2KWF 50PSI SPKLR red tan | NAAN50220RG | NAAN 5022 Sprinkler with orange nozzle |
| NR50RDRD | K-Line 40mm NEL R2KWF 50PSI SPKLR red red | NELR2KWFBR-BR | Nelson R2000WF Sprinkler Brown-Brown |
| NR50GDGD | K-Line 40mm NEL R2KWF 50PSI SPKLR gold gold | NELR2KWFGL-GL | Nelson R2000WF Sprinkler Gold-Gold |
| NR50BNBN | K-Line 40mm NEL R2KWF 50PSI SPKLR brown brown | NELR2KWFGR-GR | Nelson R2000WF Sprinkler Green-Green |
| ID and 45mm ID options and 40 and 45psi nelsor | n options also available on request | NELR2KWFRD-RD | Nelson R2000WF Sprinkler Red-Red |
| E PODS COMPLETE WITH SENNIN | GER COMPACT SPRINKLERS | NELR2KWFRD-TN | Nelson R2000WF Sprinkler Red-Tan |
| SENCOMRD | K-Line 40mm Senninger 2023 Red | NELMR40PSI | Nelson Mini Regulator 40PSI |
| SENCOMYE | K-Line 40mm Senninger 2023 Yellow | NELMR45PSI | Nelson Mini Regulator 45PSI |
| SENCOMTQ | K-Line 40mm Senninger 2023 Turquoise | NELMR50PSI | Nelson Mini Regulator 50PSI |
| SENCOMGR | K-Line 40mm Senninger 2023 Green | NELS-NIPPLE | Nelson Nipple for Regulator |
| E EFFLUENT PODS COMPLETE WI | TH SENNINGER SPRINKLERS | NREGR2KWF-40 | Nelson Connection for Regulator 40mm |
| XX8025SEN | K-line Max Effluent Pod Senninger 8025 | NELR2KWF-40 | Nelson Connector 40mm |
| X7025SEN | K-line Max Effluent Pod Senninger 7025 | KLSGNEW | K-Line Stockgaurd |
| D5023SEN | K-line Mid Effluent Pod Senninger 5023 | KLQRRSEN70 | Quick release riser for Sen70 |
| | | KLQRRSEN80 | Quick release riser for Sen80 |
| 100 | K-Line 40mm X 100m LD Polypipe | KL63CAMHOOK51B | KL63.camhook51 |
| 150 | K-Line 40mm X 150m LD Polypipe | MIDADAPTOR | MID.ADAPTOR |
| 5125 | K-Line 45mm X 125M LD Polypipe | NAAN5035RED | Naan 5035 Sprinkler |
| E6340 | Coils 63mm K-Pipe | KLMID25KIT | Bike shift kit |
| | | KLSGMID | KL MID STOCK GAURD |

K-Line 32mm Tapping Saddle





| ber | Element | K-Line Standard | K-Line Mid | K-Line Max |
|-----|----------------------|--------------------------|--------------------------|-------------------------|
| | Sprinkler | Naan 5022## | Naan 5035 | Senninger 7025 |
| | Sprinkler | Senninger compact | Senninger 5023 | Senninger 8025 |
| | Sprinkler | Nelson R2KWF | Senninger compact | N/A |
| | Saddle | 40 or 45mm KLTPS | 40 or 45 KLTPS | 63x 25mm tapping saddle |
| | Male Camlock | N/A | N/A | 2" males x FI BSP |
| | Female Camlock | N/A | N/A | 2" Females x FI BSP |
| | Adaptor | Naan Adaptor | Mid Adaptor | Sen70 or 80. adaptor |
| | U-Bolt | UBSS3240 | UBSS3240 | UBSS63 |
| | LD Pipe 40 or 45mm | LD 40 or 45mm | LD 40 or 45mm | 800 x50mm PP riser |
| | K-Line Male Coupling | 40/45mm x 11/2" Coupling | 40/45mm x 11/2" Coupling | N/A |



^{*} Freight - for all pod/pipe orders freight into store is an additional charge. # Indicates the product is not a stock item, and will be ordered in by request

Product codes without a symbol indicates the product is awailable as a stock item from the local Philmac branch.

Note that this is to be treated as a guide only, and stock status may differ between Philmac state distribution centres in line with local market preferences.